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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,486	02/28/2002	Kyong-il Yun	Q68113	7457

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EXAMINER

WENDMAGEGN, GIRUMSEW

ART UNIT PAPER NUMBER

2621

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/084,486	YUN, KYONG-IL	
	Examiner	Art Unit	
	Girumsew Wendmagegn	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-13 is/are allowed.
- 6) ☒ Claim(s) 1-6, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 7-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/09/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim1-6 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagishi et al (Patent number US 6,141,491) and Okubo (patent number US 5,337,296).

Regarding claim1, Yamagishi et al teaches an apparatus for searching for broadcast signals in a television (TV) comprising: a storage medium for storing a broadcast signal, which is received from the TV (see figure 9 element 30); a skip control unit for skip-sampling the broadcast signal stored in the storage medium, based on a set multiple-times speed (see Figure 9 element 90 read controller) but does not teach a direct move (DM) control unit for searching the broadcast signal stored in the storage medium for the location of a frame corresponding to a set time point .However Okubo teaches a direct move (DM) control unit for searching the broadcast signal stored in the storage medium for the location of a frame corresponding to a set time point (see figure3 element 9 search control device).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the search control device of Okubo in to Yamagishi et al device because It would make searching more efficient.

Regarding claim2, Yamagishi et al teaches the apparatus of claim 1, wherein the storage medium is a Hard Disc Drive (HDD) (see Figure9 element 30 and column19 lines 17-22).

Regarding claim3, Yamagishi et al teaches the apparatus of claim 1, wherein the storage medium stores the broadcast signal in real time (column19 lines 17-22).

Regarding claim4, Yamagishi et al teaches an apparatus of claim 1, further comprising: a slow control unit for reproducing one frame N times repeatedly if a slow multiple-times speed is set to $1/N$ (N is an integer) (see column17 lines 26-35).

Regarding claim5, Yamagishi et al teaches the apparatus of claim 1, wherein the skip control unit samples frames by skipping frames based on a set multiple-times speed, starting from an I frame (see figure9 I frame detector and column17 48-51).

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Regarding claim6, Okubo teaches the apparatus of claim 1, wherein the DM control unit searches for a frame, by calculating the address pointer location value of a previous I frame, which corresponds to a set time, based on a current I frame (column9 line52-column10 lines 6).

Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, absent unexpected results to the contrary.

Allowable Subject Matter

Claim7-10 is objected to as being dependent upon a rejected base claim6; but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim11-13 is allowable over the prior arts.

The following is an examiner's statement of reasons for allowance: The present invention is directed to an apparatus for searching a broadcast signal forward and backward using a storage medium. Each independent claims identify uniquely distinct features " Backward search: (c) calculating a distance value $(P_{temp} = (T_{set} * S_r) / (I_d - 1))$ from a current address pointer value (P_{now}) corresponding to the time set in step (b); (d) calculating a difference (P_d) between the current address pointer value (P_{now}) and the distance value

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(Ptemp) calculated in step (c); (e) comparing the value (Pd) with a minimum value (Pmin) of the address pointers of the storage medium; and (f) determining the value (Pd) as the address pointer value of a location which is searched for if the comparison result of step (e) indicates that the value (Pd) is equal to or greater than the minimum value (Pmin), and otherwise, determining a value, which is obtained by subtracting the minimum value (Pmin) from the value (Pd) and adding the subtraction result to the maximum value (Pmax) of address pointers of the storage medium plus 1, as the address pointer value of the location which is searched for" and "forward search: (d) calculating a sum (Pd) of the current address pointer value (Pnow) and the distance value (Ptemp) calculated in step (a); (e) comparing the value (Pd) with a maximum value (Pmax) of the address pointers of the storage medium; and (f) determining the value (Pd) as the address pointer value of a location which is searched for if the comparison result of step (e) indicates that the value (Pd) is not greater than the maximum value (Pmax), and otherwise, determining a value, which is obtained by subtracting the maximum value (Pmax) of address pointers of the storage medium plus 1 from the value (Pd), as the address pointer value of the location which is searched for". The closest prior art, Okudo (US 5,337,296) and Yamagishi et al. (US 6,141,491) either individually or in combination, fail to anticipate or render the above underlined limitations obvious.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 14-15 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. With respect to claim 10, the "processor readable medium," in accordance with Applicant's specification, may be signal. This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter.

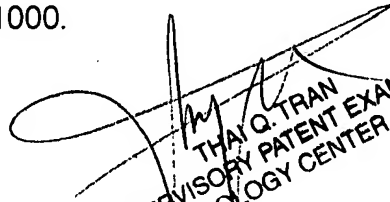
Note that amending claims 14-15 to recite --computer storage medium-- would overcome this rejection in a manner consistent with Applicant's specification.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Girumsew Wendmagegn whose telephone number is 571-270-1118. The examiner can normally be reached on 7:30-5:00, M-F, alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai can be reached on (571) 272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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Girumsew Wendmagegn

Examiner

Supervisory Patent